

Application No. 10/699,588  
Petition to Withdraw Restriction Requirement

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Applicant:	§	
Ezio Valdevit	§	<b>CUSTOMER NO. 29855</b>
	§	
	§	Docket No. 112-0124US
Serial No. 10/699,588	§	
	§	Art Unit 2616
Filed: October 31, 2003	§	
	§	Examiner: Mohammad Sajid
For: Network Path Tracing Method	§	Adhami

**Petition to Withdraw Restriction Requirement under Rule 144**

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313

Dear Sir:

In response to the Office Action of August 8, 2007 which provided a restriction requirement and the Office Action of January 21, 2009, Applicant petitions for withdrawal of the highly improper restriction requirement. Applicant provides the claims as present when the restriction requirement was traversed as an appendix to this petition.

**Remarks/Arguments**

In a Restriction Requirement dated May 28, 2008, Groups I-V were identified and election required. Applicant traversed the restriction requirement in a response filed June 23, 2008. In an Office Action dated January 21, 2009 the restriction was made final. Therefore this matter is ripe for this petition.

**Restriction v. Election**

The Restriction Requirement commences by identifying five different inventions and requiring an election of one of the inventions. The Restriction Requirement concludes by requiring Applicant to elect a species. Applicant clarified which of these two contradictory options were being required in a telephone conference with the Examiner. It was indicated that invention election, not species election was to be performed.

### **Traversal of Restriction Requirement**

#### **Restriction After Office Action on Merits**

Applicant first notes that an action on the merits has previously issued in this case. MPEP § 811 requires consideration if there will be a serious burden if restriction is not required. Applicant submits that there is no showing of the serious burden. All claims were rejected in the action on the merits under a combination of §§ 102 and 103. The §102 rejections were to claims which fell into four of the stated inventions. Applicant separately argued eight sets of claims, which fall into a different four of the stated inventions. The following table illustrates the rejections, argued claims and groups. Only claims 1-18 are illustrated in the table for simplicity. Similar breakdowns apply to claims 19-36, 37-54 and 55-72.

	Group I	Group II	Group III	Group IV	Group V
§ 102 Rejection	1	8, 9	10-13		18
§ 103 Rejection	2-7				
§ 103 Rejection			14		16
§ 103 Rejection				15	
§ 103 Rejection					17
§ 102 Arguments	1		11, 13		18
§ 103 Argument	3-7				
§ 103 Argument			14		
§ 103 Argument				15	
§ 103 Argument					17

As such, both the Examiner and the Applicant had already addressed all five of the stated groups in the action of the merits and the response. Further, given that the searching is primarily done based on selected words and large numbers of subclasses are always searched (as in the prior search when 11 different subclasses were used for any subclass limited searches, with the subclasses that were searched including two completely

disparate major subclasses 229 and 241) it is submitted that the serious burden cannot be shown.

The January 21, 2009 Office Action responded by stating:

This is not found persuasive because a search burden exists because elements exist in each of the groups which require searches in areas not required for other groups. The initial search did not cover all the relevant search classes required.

Applicant notes that the response fails to indicate that there will be a serious burden, as required by MPEP § 811. The mere existence of a search burden is not sufficient according to MPEP § 811. A serious burden is required and the Office Action has provided no proof. The admission that the original search did not cover all of the relevant search classes is not proof of a serious burden, just an admission that the prior search was inadequate. Of course, that prior inadequate search did not stop the Examiner from rejecting all of the claims under different grounds (it is noted that four additional, separate references were used in forming the § 103 rejections) or the Applicant from having to respond to those rejections. Therefore the response in the Office Action fails for lack of any evidence, much less sufficient evidence, to meet the required burden.

Applicant respectfully submits that the requirement to show serious burden has not been met and requests that the restriction requirement be ordered withdrawn on the ground of not meeting the requirements of MPEP § 811 relating to restriction after an office action on the merits.

### **Improper Nature of Requirement**

The restriction requirement is effectively separating various sets of dependent claims on the alleged basis of subcombinations useable together in a single combination. A chart is provided as an appendix to this petition. The chart very clearly shows that Groups II-V are all dependent claims to the independent claims in Group I. Applicant submits that subcombinations usable together analysis is improper to use as a basis for requiring an invention election, as opposed to a species election. This type of analysis is considered proper to use when analyzing independent claims against each other, but not dependent claims against each other or against their independent claims. It will be a rare

case where different specific elements of dependant claims are not useable together in a combination. That is almost a fundamental in claim drafting. Allowing such a normal structure to be used as a basis for an invention election essentially punishes an applicant for drafting varying claims to fully cover detailed aspects of an invention.

The January 21, 2009 Office Action responded by stating:

disagrees. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. See MPEP § 806.05(d). The Examiner cannot find in the cited section of the MPEP for a sub-combination usable together in a single combination where a distinction is made between dependent and independent claims.

Applicant provides MPEP § 806.05(d) for convenience.

**806.05(d)Subcombinations Usable Together [R-5]**

Two or more claimed subcombinations, disclosed as usable together in a single combination, and which can be shown to be separately usable, are usually restrictable when the subcombinations do not overlap in scope and are not obvious variants.

>To support a restriction requirement where applicant separately claims plural subcombinations usable together in a single combination and claims a combination that requires the particulars of at least one of said subcombinations, both two-way distinctness and reasons for insisting on restriction are necessary. Each subcombination is distinct from the combination as claimed if:

(A)the combination does not require the particulars of the subcombination as claimed for patentability (e.g., to show novelty and unobviousness), and

(B)the subcombination can be shown to have utility either by itself or in another materially different combination.

See MPEP § 806.05(c). Furthermore, restriction is only proper when there would be a serious burden if restriction were not required, as evidenced by separate classification, status, or field of search.

Where claims to two or more subcombinations are presented along with a claim to a combination that includes the particulars of at least two subcombinations, the presence of the claim to the second subcombination is evidence that the details of the first subcombination are not required for patentability (and vice versa). For example, if an application claims ABC/B/C wherein ABC is a combination claim and B and C are each subcombinations that are properly restrictable from each other, the

presence of a claim to C provides evidence that the details of B are not required for the patentability of combination ABC.

Upon determining that all claims directed to an elected combination invention are allowable, the examiner must reconsider the propriety of the restriction requirement. Where the combination is allowable in view of the patentability of at least one of the sub-combinations, the restriction requirement between the elected combination and patentable subcombination(s) will be withdrawn; furthermore, any subcombinations that were searched and determined to be allowable must also be rejoined. If a subcombination is elected and determined to be allowable, nonelected claims requiring all the limitations of the allowable claim will be rejoined in accordance with MPEP § 821.04. <

Applicant refers to the example of ABC/B/C used for a combination claim and two subcombinations. This is a clear indication that the analysis is to be performed only for independent claims. What are the claims in the present case in a similar format?

A/AB/AC/AD/AE, where A is the only independent claim<sup>1</sup>. There are no claims for B, C, D or E as would fit the example provided in the MPEP. The statement in the Office Action is erroneous as MPEP § 806.05(d) does provide an example, an example which the present claims do not meet.

Applicant submits that the whole nature of the restriction is improper and the restriction should be ordered withdrawn.

### **Improper Correlation of Claims to Stated Classes and Subclasses**

Applicant submits the classification of claims 8, 9, 26, 27, 44, 45, 62, and 63 to Group II and claims 10 – 14, 28 – 32, 46 – 50 and 64 – 68 to Group III are erroneous.

Class 370, subclass 393, the originally stated classification of Group II, is stated as being for multiplex communications (class 370), path finding or routing (subclass 391), switching a message which includes an address header (subclass 389), processing of address header for routing (subclass 392) and finally address concatenation (subclass 393). As an example, claims 8 and 9 add limitations to claim 1 relating to the direction of the flow of the frames, either original source to original destination or the reverse. They

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<sup>1</sup> Applicant submits that even using this format is improper as the Group II-V claims are all dependent claims and as should not properly be shown in the format. However, the format is used to show the comparison to the alleged groups and the claims to show that there are no claims to just the alleged subcombinations.

do not relate to address concatenation used to process an address header, which is commonly known as onion or source routing. The January 21, 2009 Office Action admits this misclassification and asserts a new classification of 370/389 for Group II.

Class 310, subclass 401, the originally stated classification of Group III, is stated as being multiplex communications (class 370), pathfinding or routing (subclass 351), switching a message which includes an address header (subclass 389), having a plurality of nodes performing distributed switching (subclass 400) and finally, bridge or gateway between networks (subclass 401). Exemplary claims 10-14 do not include any limitations relating relating to bridges or gateways. Claims 10-14 relate to internal switch operations. Claim 10 simply relates to passing the frame to the connected node device. Claims 11-14 relate to the routing roles used internal to the switch. None of the claims specify limitations of bridges or gateways. The January 21, 2009 Office Action admits this misclassification and asserts a new classification of 370/351 for Group III. But here yet another misclassification has been made. Exemplary claims 10-14 all include switching of the message which includes an address header (or include that feature as much as claims 8 and 9 do). Thus the classification to subclass 351 is improper and it should be 389. But this is the same classification as Group II, thus removing the grounds for establishing the distinct nature of Groups II and III.

Applicant submits that these classification errors are yet further indicators to the arbitrary and improper nature of the restriction requirement as a whole.

#### **Petition Fee**

The Office is authorized to charge any petition fee for this petition and any other necessary fees to Deposit Account 501922, referencing attorney docket number 112-0124US.

**Conclusion**

Based on the above remarks Applicant respectfully submits that the restriction requirement is improper and requests withdrawal. Reconsideration is respectfully requested.

Respectfully submitted,

April 30, 2009

Filed Electronically

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**Appendix with Listing of Claims:**

1. (Previously Presented) A Fibre Channel switch for use in a switched fabric which interconnects nodes, with all routes between all switches and all nodes in the fabric previously determined, the switch comprising:

a plurality of ports configured to receive and transmit a frame; and  
a fabric manager coupled to the plurality of ports to obtain the received frame and to provide a frame to be transmitted, the fabric manager configured to add information to the frame, the information including receive and transmit port identity and the switch identity, and to provide the frame for transmission.

2. (Original) The switch of claim 1, the information further including the speed of the port receiving the frame and the link cost of a link connected to the transmit port.

3. (Original) The switch of claim 1, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame.

4. (Original) The switch of claim 3, wherein the transmit and receive rates are based on a first defined period.

5. (Original) The switch of claim 4, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame based on a second defined period, the second defined period being greater than the first defined period.

6. (Previously Presented) The switch of claim 5, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

7. (Previously Presented) The switch of claim 4, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.



8. (Original) The switch of claim 1, wherein the frame has an original source and an original destination and wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original source to the original destination.

9. (Original) The switch of claim 8, wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original destination to the original source.

10. (Original) The switch of claim 1, wherein a node device is connected to one of the plurality of ports and wherein the fabric manager is configured to transmit the frame to the node device.

11. (Original) The switch of claim 1, wherein the fabric manager is configured to select the port to transmit the frame based on normal routing rules.

12. (Original) The switch of claim 11, wherein the frame contains source routing information and wherein the fabric manager is configured to select the port to transmit the frame based on the source routing information.

13. (Original) The switch of claim 12, wherein the fabric manager is configured to use normal routing rules if the source routing information does not indicate a device directly connected to the switch.

14. (Previously Presented) The switch of claim 11, wherein the frame is destination addressed to a well known address, and wherein the fabric manager is configured to determine the a destination address by retrieving data from the frame payload.

15. (Original) The switch of claim 1, wherein there are a plurality of equal cost routes that can be used for transmitting the frame and wherein the fabric manager is configured to transmit the frame over all of such routes.

16. (Previously Presented) The switch of claim 1, wherein the frame is an extended link services frame.

17. (Original) The switch of claim 1, wherein the fabric manager is configured to determine if the switch is the original destination of the frame, and if so, modify the frame to cause it to return to the original source.

18. (Original) The switch of claim 1, wherein the fabric manager is configured to determine if the switch was the original source of the frame, and if so, to capture the frame and not further transmit the frame.

19. (Previously Presented) A fabric which interconnects nodes, the fabric comprising:

- a first Fibre Channel switch; and
- a second Fibre Channel switch coupled to the first switch,

wherein each of said first and second switches has previously determined all routes between all switches and all nodes in the fabric, and

wherein each of the first and second switches includes:

- a plurality of ports configured to receive and transmit a frame; and
- a fabric manager coupled to the plurality of ports to obtain the received frame and to provide a frame to be transmitted, the fabric manager configured to add information to the frame, the information including receive and transmit port identity and the switch identity, and to provide the frame for transmission.

20. (Original) The fabric of claim 19, the information further including the speed of the port receiving the frame and the link cost of a link connected to the port.

21. (Original) The fabric of claim 19, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame.

22. (Original) The fabric of claim 21, wherein the transmit and receive rates are based on a first defined period.

23. (Original) The fabric of claim 22, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame based on a second defined period, the second defined period being greater than the first defined period.

24. (Previously Presented) The fabric of claim 23, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

25. (Previously Presented) The fabric of claim 22, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

26. (Original) The fabric of claim 19, wherein the frame has an original source and an original destination and wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original source to the original destination.

27. (Original) The fabric of claim 26, wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original destination to the original source.

28. (Original) The fabric of claim 19, wherein a node device is connected to one of the plurality of ports of the first or the second switch and wherein the fabric manager of the respective switch is configured to transmit the frame to the node device.

29. (Original) The fabric of claim 19, wherein the fabric manager is configured to select the port to transmit the frame based on normal routing rules.

30. (Original) The fabric of claim 29, wherein the frame contains source routing information and wherein the fabric manager is configured to select the port to transmit the frame based on the source routing information.

31. (Original) The fabric of claim 30, wherein the fabric manager is configured to use normal routing rules if the source routing information does not indicate a device directly connected to the switch.

32. (Previously Presented) The fabric of claim 29, wherein the frame is destination addressed to a well known address, and wherein the fabric manager is configured to determine a true destination address by retrieving data from the frame payload.

33. (Original) The fabric of claim 19, wherein there are a plurality of equal cost routes that can be used for transmitting the frame and wherein the fabric manager is configured to transmit the frame over all of such routes.

34. (Previously Presented) The fabric of claim 19, wherein the frame is an extended link services frame.

35. (Original) The fabric of claim 19, wherein the fabric manager is configured to determine if the switch is the original destination of the frame, and if so, modify the frame to cause it to return to the original source.

36. (Original) The fabric of claim 19, wherein the fabric manager is configured to determine if the switch was the original source of the frame, and if so, to capture the frame and not further transmit the frame.

37. (Previously Presented) A Fibre Channel network comprising:  
a first Fibre Channel node device;  
a second Fibre Channel node device; and  
a Fibre Channel fabric connected to the first and second node devices,  
wherein the fabric includes:  
a first Fibre Channel switch; and  
a second Fibre Channel switch coupled to the first switch,  
wherein each of said first and second switches has previously determined all  
routes between all switches and all nodes in the fabric, and  
wherein each of the first and second switches includes:  
a plurality of ports configured to receive and transmit a frame; and  
a fabric manager coupled to the plurality of ports to obtain the  
received frame and to provide a frame to be transmitted, the fabric manager configured to  
add information to the frame, the information including receive and transmit port identity  
and the switch identity, and to provide the frame for transmission.

38. (Original) The network of claim 37, the information further including the  
speed of the port receiving the frame and the link cost of a link connected to the port.

39. (Original) The network of claim 37, the information further including  
transmit and receive rates of the port receiving the frame and the port transmitting the  
frame.

40. (Original) The network of claim 39, wherein the transmit and receive rates  
are based on a first defined period.

41. (Original) The network of claim 40, the information further including  
transmit and receive rates of the port receiving the frame and the port transmitting the  
frame based on a second defined period, the second defined period being greater than the  
first defined period.

42. (Previously Presented) The network of claim 41, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

43. (Previously Presented) The network of claim 40, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

44. (Original) The network of claim 37, wherein the frame has an original source and an original destination and wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original source to the original destination.

45. (Original) The network of claim 44, wherein the fabric manager is configured to add the information to the frame when the frame is traveling from the original destination to the original source.

46. (Original) The network of claim 37, wherein a node device is connected to one of the plurality of ports of the first or the second switch and wherein the fabric manager of the respective switch is configured to transmit the frame to the node device.

47. (Original) The network of claim 37, wherein the fabric manager is configured to select the port to transmit the frame based on normal routing rules.

48. (Original) The network of claim 47, wherein the frame contains source routing information and wherein the fabric manager is configured to select the port to transmit the frame based on the source routing information.

49. (Original) The network of claim 48, wherein the fabric manager is configured to use normal routing rules if the source routing information does not indicate a device directly connected to the switch.

50. (Previously Presented) The network of claim 47, wherein the frame is destination addressed to a well known address, and wherein the fabric manager is configured to determine a true destination address by retrieving data from the frame payload.

51. (Original) The network of claim 37, wherein there are a plurality of equal cost routes that can be used for transmitting the frame and wherein the fabric manager is configured to transmit the frame over all of such routes.

52. (Previously Presented) The network of claim 37, wherein the frame is an extended link services frame.

53. (Original) The network of claim 37, wherein the fabric manager is configured to determine if the switch is the original destination of the frame, and if so, modify the frame to cause it to return to the original source.

54. (Original) The network of claim 37, wherein the fabric manager is configured to determine if the switch was the original source of the frame, and if so, to capture the frame and not further transmit the frame.

55. (Previously Presented) A method of providing frame routing information through a Fibre Channel switch having a plurality of ports, the switch for use in a switched fabric which interconnects nodes, with all routes between all switches and all nodes in the fabric previously determined, the method comprising:

receiving a frame;

adding information to the frame, the information including receive and transmit port identity and the switch identity; and

providing the frame to a port for transmission.

56. (Original) The method of claim 55, the information further including the speed of the port receiving the frame and the link cost of a link connected to the port.

57. (Original) The method of claim 55, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame.

58. (Original) The method of claim 57, wherein the transmit and receive rates are based on a first defined period.

59. (Original) The method of claim 58, the information further including transmit and receive rates of the port receiving the frame and the port transmitting the frame based on a second defined period, the second defined period being greater than the first defined period.

60. (Previously Presented) The method of claim 59, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

61. (Previously Presented) The method of claim 58, the information further including the number of frames transmitted and received by the port receiving the frame and the port transmitting the frame.

62. (Original) The method of claim 55, wherein the frame has an original source and an original destination and the information is added to the frame when the frame is traveling from the original source to the original destination.

63. (Original) The method of claim 62, wherein the information is added to the frame when the frame is traveling from the original destination to the original source.



64. (Original) The method of claim 55, wherein a node device is connected to one of the plurality of ports and wherein the frame is provided for transmission to the node device.

65. (Original) The method of claim 55, wherein the port selected to transmit the frame is based on normal routing rules.

66. (Original) The method of claim 65, wherein the frame contains source routing information and wherein the port selected to transmit the frame is based on the source routing information.

67. (Original) The method of claim 66, wherein normal routing rules are used if the source routing information does not indicate a device directly connected to the switch.

68. (Previously Presented) The method of claim 65, wherein the frame is destination addressed to a well known address, and wherein a true destination address is determined by retrieving data from the frame payload.

69. (Original) The method of claim 55, wherein there are a plurality of equal cost routes that can be used for transmitting the frame and wherein the frame is transmitted over all of such routes.

70. (Previously Presented) The method of claim 55, wherein the frame is an extended link services frame.

71. (Original) The method of claim 55, further comprising:  
determining if the switch is the original destination of the frame, and if so,  
modifying the frame to cause it to return to the original source.

72. (Original) The method of claim 55, further comprising:

Application No. 10/699,588  
Petition to Withdraw Restriction Requirement

determining if the switch was the original source of the frame, and if so, to capturing the frame and not further transmitting the frame.

73.- 82. (Cancelled)

# 10/699,588 Claim Dependency v. Restriction Groups Chart

